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Commissioner for Patents

**REMARKS/ARGUMENTS**

No new matter has been added with the amendment.

Claims 1-9, 11-13, and 15-18 are now in the application.

Claims 1-9, 11-12, and 15-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US patent No. 4,934,583 to Patsfall in view of Applicant's Admitted Prior Art (AAPA).

As stated in MPEP section 706.02(j), to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Patsfall teaches a method to put a blade (20) onto the periphery of a hub (22). The method can be used to replace a damaged blade or for initial manufacturing. But Patsfall is silent about the shafts - understandably, perhaps, because his process seems highly adapted to attaching airfoils to discs. Nothing in Patsfall suggests its applicability beyond airfoils.

Therefore, Patsfall teaches a blade attachment technique, and nothing else - Patsfall discloses no other part or application for his process. In other words, if the 103 rejection based on Patsfall to stand, the Examiner's position must be that, *prima facie*, it is well known to the skilled artisan that processes applicable to attaching airfoil blade to rotors are identical or analogous to attaching shafts to rotors.

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However, Applicant suggests that this contention is strained, at best, and to be sustainable evidence in support is required. Applicant respectfully submits that a person of ordinary skilled in the art will appreciate that the constraints applied to a shaft attached to an impeller are quite different than the one applied to the blades attached to a hub. Pastfall teaches no such link. Without such evidence, it is submitted that the Examiner must withdraw the rejection, since *prima facie* obviousness has not been established.

Moreover, there is no suggestion or motivation to combine the teaching of Patsfall and the AAPA since they address different technical problems: repairing or providing a bladed disk made of conventional titanium alloy versus providing a functional impeller, including a forged blank made of IMI834 and a stub shaft. Again, if it is contended that the arts of attaching blades to rotors and attaching shafts to rotors are analogous, Applicant suggest that evidence supporting this contention is required to sustain the rejection.

Consequently, rejection of claim 1 is improper and should be withdrawn. Claims 2-7 and 11-13 which depend on claim 1 are also inventive.

For similar reasons, the rejection of claim 8 is improper, and should be withdrawn, as should the rejections of claims 9 and 15-18.

Applicant herein submits for the Examiner's consideration new claim 18 which corresponds to claim 13, which was considered allowable if rewritten in independent form.

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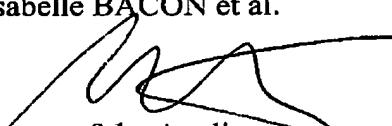
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In view of the foregoing, withdrawal of the rejection of claims 1-9, 11-13, and 15-18 is respectfully requested. In the event that there are any questions concerning this amendment or the application in general, the Examiner is respectfully urged to telephone the undersigned so that prosecution of this application may be expedited.

Respectfully submitted,

Isabelle BACON et al.

By:

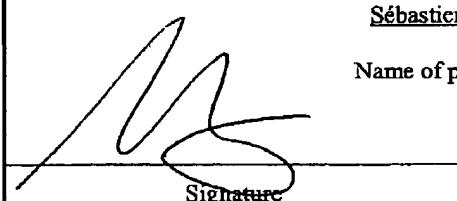
  
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